Operating manual:

Mobile speciality pump Atlantica





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Table of contents

1 General information

Dear Customer,
Thank you for your decision to purchase and install this top quality product. Please follow these operating instructions, especially those concerning safety: They are there for your safety, will save you trouble and guard from loss of guarantee.

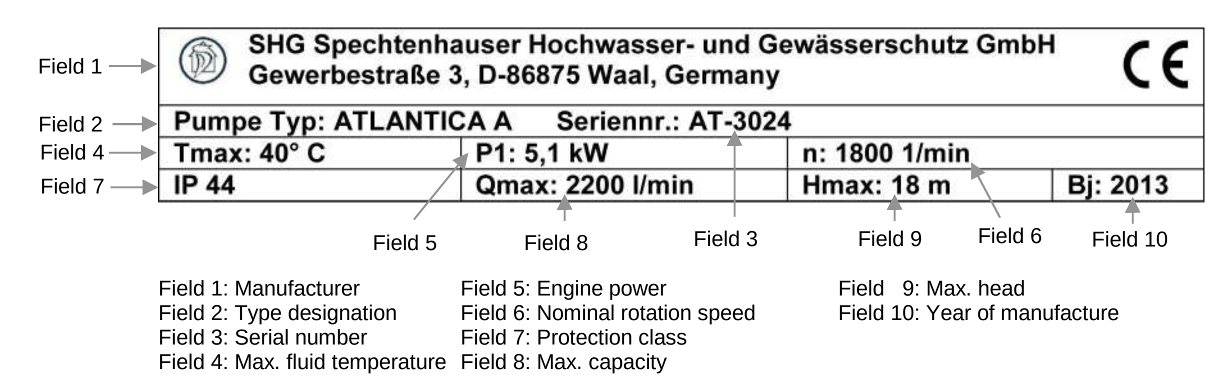
1.1 Versions

The following versions of ATLANTICA pumps are available:

- Atlantica: Pump including carrying frame, gasoline engine (Subaru) Spechtenhauser manual double-stroke piston pump, A- or B-Storz coupling on inlet and outlet side
- Atlantica with electric starter (accessory): Like standard Atlantica, but with gasoline engine with electric starter and 12V battery

1.2 Marking of the pumps

Each Atlantica pump is marked by a nameplate:



Field 1: Manufacturer
Field 2: Type designation
Field 3: Serial number
Field 4: Max. fluid temperature
Field 5: Engine power
Field 6: Nominal rotation speed
Field 7: Protection class
Field 8: Max. capacity
Field 9: Max. head
Field 10: Year of manufacture

1.3 Application

The mobile speciality pump ATLANTICA is designed for strongly soiled waste water or sewage including solids or long fibres in case of flood control, flooding, pipe bursts or water level reduction. It is blockage-free for solids up to 70-80 mm in size. The pumps are designed for mobile use. For permanent fixed installation the use of sewage pumps made of cast iron is recommended.

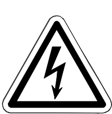
2 Safety instructions

(General safety instructions as per VDMA 24292)
This operation manual gives basic instructions that should be followed carefully during installation, operation and maintenance. It is essential that this manual is carefully read by the responsible personnel/operator before assembly and commissioning. It is always to be kept available at the installation/usage site of the pump.

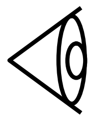
2.1 Markings and symbols in this operating instructions



Safety instructions given in the user´s manual, the non-observance of which could cause danger to life have been specifically highlighted with the general danger symbol.



The presence of dangerous voltage is identified with the safety symbol.



Other safety points in these instructions, the non-observance of which may endanger machinery or its operation, are marked as follows.

Symbols directly on the pump itself, e.g.
- Direction of rotation
- Type plate

must be carefully observed and must be maintained in legible condition.

2.2 Qualifications of personnel

An authorized (certified) electrician and mechanic shall carry out all work. Scope of responsibility and supervision of the personnel must be exactly defined by the operator. If the staff does not have the necessary knowledge, they must be trained and instructed, which may be performed by the manufacturer or supplier on behalf of the operator, moreover, the operator is to make sure that the contents of the operating manual are fully understood by the personnel.

Minimum requirements for the operating personnel:
- Legal age
- Firefighter training in accordance with the fire service regulation 2 and additional instruction of the trained machinist or "Technical Assistance" course in accordance with fire service regulation 2 or
- basic training Level I (German THW) as a rescue worker

Minimum requirements for the maintenance and inspection personnel:
- Legal age
- Qualified electrician

2.3 Hazards in the event of non-compliance with the safety instructions

Non-compliance with the safety instructions may produce a risk to the personnel as well as to the environment and the machine and results in a loss of any right to claim damages or compensation. For example, non-compliance may involve the following hazards:
- Failure of important functions of the pump
- Failure of specified procedures of maintenance and repair
- Exposure of people to electrical, mechanical and chemical hazards
- Endangering the environment owing to hazardous substances being released

2.4 Safety regulations for owner/operator

All safety instructions contained in this manual, all relevant national and local health and safety codes and any other service and safety instructions issued by the owner shall be complied with.

2.5 Safety instructions relevant for operation

Always follow these safety instructions before using the pump:

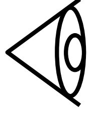
Danger of electric shock:

- Protect plug-and-socket connections against moisture and increasing water levels in flood areas.
- When using the pump in swimming pools or ponds and the surrounding area DIN/VDE 0100 must be complied with.
- Hazards resulting from electricity are to be prevented (see for example, the national-specifications or the regulations of your local electricity supply company)



General danger

- If hot or cold machine components involve hazards, they must be guarded against accidental contact.
- Guards for moving parts (e.g. couplings, nozzles) must not be removed from the machine while in operation.
- In dry-well installation (suction mode) the motor housing heats up after a lengthy operating period. You must therefore only use the hinged handles provided on the pump transport cage to transport the pump and avoid direct contact with the motor housing. Always wear protective gloves too.
- When pumping hot fluids the pump always becomes as hot as the pumped fluid. In this case you must only touch the pump if you are wearing suitable protective gloves.
- In pumping mode strong suction is produced at the intake area of the pump. It is therefore necessary to ensure that while the pump is running you never allow your hands, feet, loose clothing (e.g. ties) or jewellery (e.g. chains) to get into the area of the pump intake (suction side) or pump discharge (pressure side). There is risk of shearing injuries or getting tangled.
- The protection against contact (intake ports) for moving parts (impeller) may not be removed if the machines are in operation. The pump itself may not be operated without the appropriate protection against contact.
- Any leakage of hazardous (e.g. explosive, toxic, hot) fluids (e.g. from the shaft seal) must be drained away so as to prevent any risk to persons or the environment. Statutory regulations are to be complied with.



Damage of the pump due to inappropriate use:

- Store the pump in dry rooms only. If kept dry and clean the pump can be stored down to a minimum temperature of –20°C. The flooded pump must not freeze.
- Always use the carrying handles or the transport cart to transport the pump.
- Never lift or lower the pump by the power cable or connected hoses. Always use chains or suitable ropes.
- The pump must not be excessively tilted as operating liquid could otherwise run out of the engine. See the Engine Subaru User Manual for further details.

2.6 Safety instructions relevant for maintenance, inspection and assembly work

It shall be the user's responsibility to ensure that all maintenance, inspection and assembly work is performed by authorized and qualified personnel who have adequately familiarized themselves with the subject matter by studying this manual in detail.
Any work on the machine shall only be performed when it is at stand-still, it is being imperative that the procedure for shutting down the machine described in this manual as well as in the operating manual engine Subaru be followed. Pumps and pump units which convey hazardous media must be decontaminated. All waste emissions such as used oil must be appropriately disposed of, oil spills must be cleaned up and emissions to the en-

vironment must be reported. On completion of work all safety and protective facilities must be reinstalled and made operative again.
Before restarting, the points listed in section 4 Operating the Pump are to be observed.

2.7 Unauthorized modifications and manufacturing of spare parts

Any modification may be made to the pump only after consultation with the manufacturer. Using spare parts and accessories authorised by the manufacturer is in interest of safety. Use of other parts may exempt the manufacturer from any warranty or compensation claims.

2.8 Unauthorised modes of operation

The reliability of the pump delivered will be only guaranteed if it is used in the manner intended, in accordance with this manual. The limit values specified in the data sheet must under no circumstances be exceeded. These installation and operation instructions do not supersede or exclude generally valid regulation and standards.

3 Technical data

3.1 Equipment and weight

Type	Atlantica A	Atlantica B
Inlet:	A-Storz	B-Storz
Outlet:	A-Storz	B-Storz
Max. solid passage:	80 mm	70 mm
Max. temp. of liquid:	0° - 40 °C	0° - 40 °C
Weight (dry):	66 kg	65 kg
Weight (ready-to-operate)	71 kg	70 kg

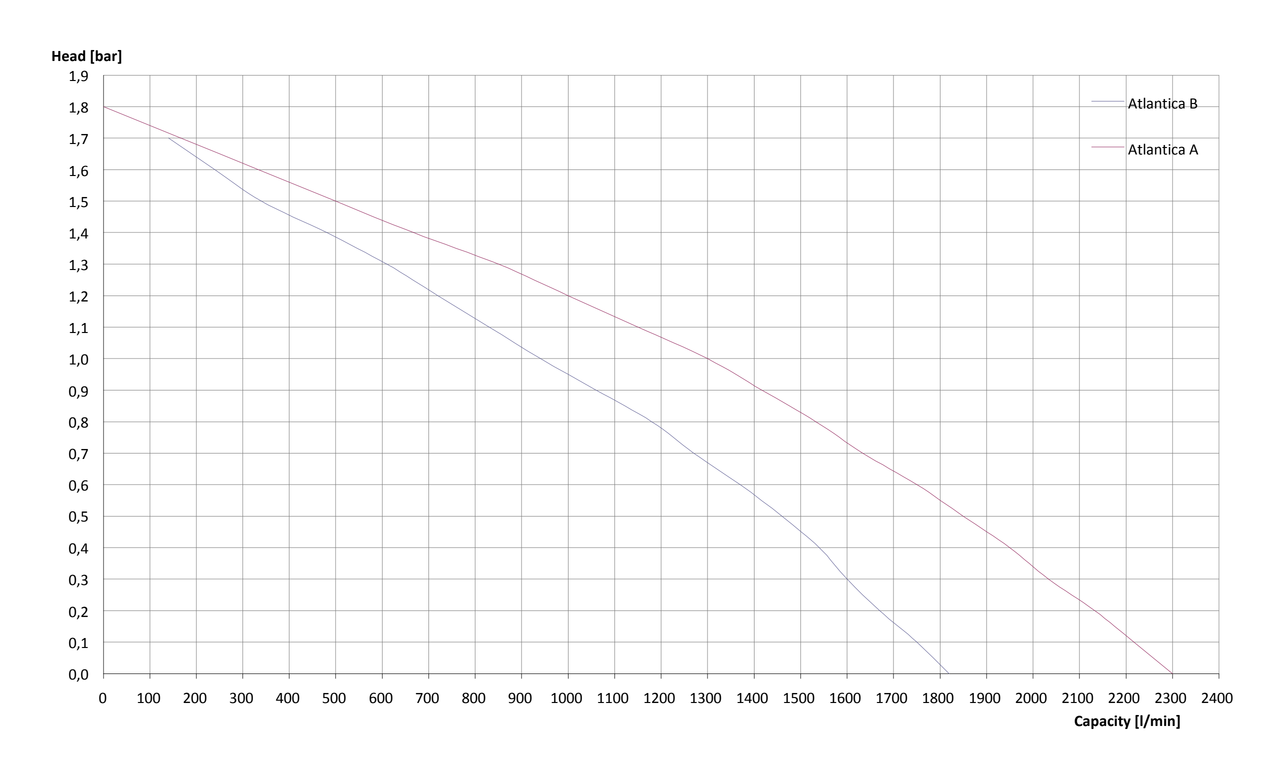
3.2 Engine data

Type	Atlantica A	Atlantica B
Type of engine:	4-stroke OHC gasoline engine	4-stroke OHC gasoline engine
Continuous power:	5,1 kW 7,0 HP	5,1 kW 7,0 HP
Fuel tank capacity:	6,1 l	6,1 l
Rotation speed:	3600 rpm	3600 rpm

3.3 Performance

	Head [bar]	0	0,2	0,4	0,6	0,8	1,0	1,2	1,6
Atlantica A	**Capacity**	2300	2130	1950	1750	1530	1300	1000	330
Atlantica B	**[l/min]**	1800	1670	1540	1370	1170	940	720	240

3.4 Capacity-head table



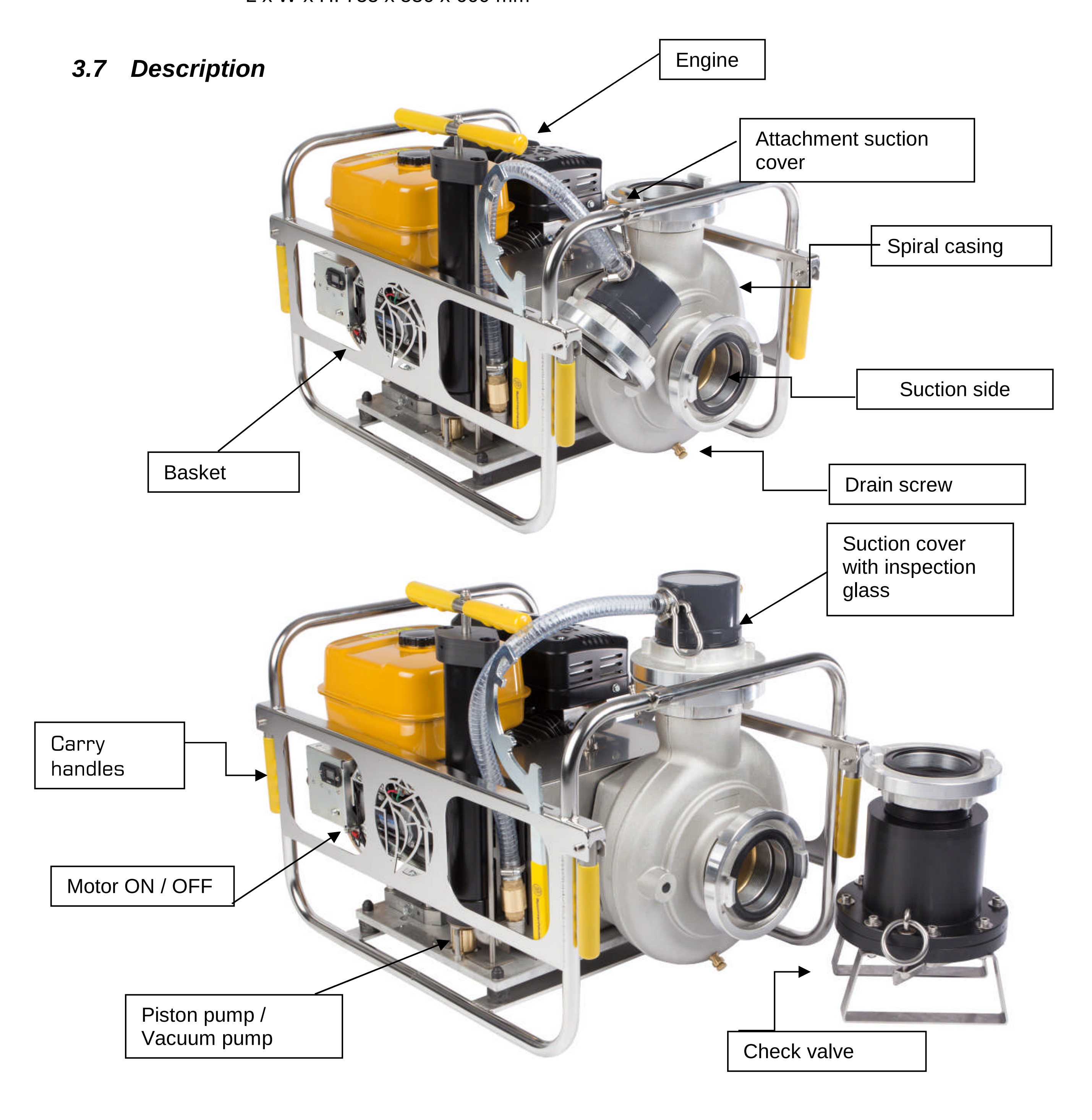
3.5 Materials

- All housing parts made of aluminium alloy (except engine, see operating manual engine Subaru), bearing block made of galvanized steel
- All screw connections made of stainless steel
- Impeller made of wear-resistant and self-cleaning aluminium bronze
- Sealing with dry run and endurance run suitable double mechanical seal made SiC/SiC und SiC/carbon
- Carrying frame made of stainless steel

3.6 Dimensions

L x W x H: 755 x 530 x 660 mm

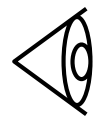
3.7 Description



4 Operating the pump



Caution:
The pump may only be used in accordance with the instructions in this operation manual.



Note:
Before using the pump, check that the engine has been filled with petrol. Filling during operation is strictly forbidden.



Danger from electric shock:
Bring electrical plug connections to a flood-proof area to protect them from water. Watch out for rising water levels in flood areas!

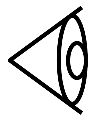


Caution:
For outdoor use, the provisions of EN 60 335-2-41 must be observed.



Danger from electric shock:
No-one should be present inside the pumping medium when the pump is in operation.

4.1 Operating the pump



For safe working on and with the pump, the wearing of safety shoes and safety gloves is recommended, in order to prevent injury from crushing or cutting.

Each time when using the pump, also ensure the following points:

1. Transport the pump to the place of use.

   Caution:
   Always transport the pump with the handles provided for this purpose only.

2. Mount the suction cover with inspection glass to the pressure side of the pump and connect the suction cover to the corresponding connection. This guarantees that the piston pump is able to generate negative pressure for suctioning. The suction cover is to be checked for functionality and impurities before assembling, and fixed if necessary. Furthermore, ensure that the pump is sitting evenly on stable ground and that the engine is dry (see Engine Safety, Engine User Manual).

   Caution:
   Only the suction cover from Spechtenhauser is to be used. Suction operation with other suction cover is not possible. Only use a transparent suction hose as a suction hose.

   Danger:
   The dimensionally stable spiral hoses for using the pump, as well as the suction cover, must be fitted on the pressure and / or suction side before use. They serve as impact protection for the impeller. The pumps themselves may not be operated without the appropriate contact protection. Ensure the absence of foreign objects in the pump and hoses before operating.

3. In case of the delivered check valve, a leash can be attached to the venting ring for venting the suction line. When the leash is attached, it is to be ensured that it is 1.5 m longer than the depth of immersion of the suction hose to be employed

4. Fit a transparent, dimensionally stable spiral hose with A or B Storz connection to the suction side of the pump. For suction with the reciprocating piston pump, the

open end of the hose must be coupled with the Spechtenhauser check valve, and in this case, for the suction process, the check valve, with the opening flap, must be located completely in the medium. For suction, the hose must not take in any air.



Caution:
When placing the transparent, dimensionally stable spiral hoses (suction side) in the liquid, it must be ensured that the engine is not splashed and that it does not become wet. In addition, the hose should be laid as much as possible with no kinks or bends.



Caution:
Only the check valve from Spechtenhauser is to be used. Suction operation with ball flap valves is not possible. Only use a transparent suction hose as a suction hose.

5. Make sure that the pump is standing safely.



Danger:
Before starting work with the pump, it must be ensured that the pump is still standing evenly on solid ground after fitting the hoses, in order to guarantee trouble-free operation of the pump.

6. Ensure that the engine is switched off. For this purpose the red knob on the engine must be set to off. Then check the oil and petrol level and fill if necessary. Please also read the safety notes in the Engine Subaru User Manual.



Danger due to deflagration:
Oil and petrol may never be refilled when the pump is operating. Similarly, ensure that the engine is not too hot while filling (previous pump operation). Please refer to the Engine Subaru User Manual for exact engine filling instructions.

7. Fill the pump system (suction hose and spiral casing) by activating the Spechtenhauser reciprocating piston pump with water. For this, the following points are to be observed.



Caution:
By using the Spechtenhauser reciprocating piston pump with a transparent suction hose, check valve and suction cover, self-suction of the pump is possible. All couplings used on the suction side must be clean and leak-proof. As soon as air is able to enter the system on the suction side, pumping is no longer possible. Suction is only possible with pumping liquid of max. 40 C.

8. Ensure that the stopcock is open and that the hose which leads from the reciprocating piston pump to the suction cover is not blocked.

9. Lay the suction hose with non-return valve in the medium to be pumped. Ensure that do not insert the end of the leash into the medium. Furthermore, note that the check valve is not located on the ground, rather approx. 20 cm above the ground. It is avoided that stones and so forth are sucked in

10. Now pump using the reciprocating piston pump until the spiral casing is completely filled with water. During the suction procedure, watch the rising water column in the transparent hose. Once the water column has fully reached the spiral casing, the suction process has been concluded. Sucking water into the suction hose of the reciprocating piston pumps is to be avoided under all circumstances. The suction process is to be ended before water can be sucked into the suction pipe



Important:
The non-return valve must be loaded with at least 1.5 m water column so that it is completely watertight.

11. Now loosen the suction cover from the coupling and place this onto the receptacle on the support frame during the operation. The water column is retained by the check valve. Now fix a transparent spiral hose or a 90° elbow on the pressure side of the pump. A suitable fire hose can now be connected to this 90° elbow or this spiral hose. Lay this at a suitable drain or collection tank. The end of the pressure hose must be adequately secured against impact. The fire hose should be laid without kinks, where possible, to achieve an optimum pumping power. It is strongly recommended that you use the optional dimensionally stable spiral pressure hose for the first 3 - 5m.



Danger:
Ensure that the pressure hose end is adequately secured and fixed. Otherwise, there is the risk of the hose end being hit when switching on the pump.

12. The suction procedure is now complete and the pump is ready for starting the engine.

13. Now check the shock on the engine and set it to ignition.

14. Turn the pump on by switching on the red power button and then pulling the reverse starter to start the engine (with E-start, turn the ignition key). Please refer to the Engine Subaru User Manual for more information on starting the engine. The ball valve can now be opened once the engine is running and the water column is there. The engine can now run at full power using the throttle. The pump should now deliver with the specified flow rate.

15. Switch off the pump again by turning the red knob as soon as the water level has fallen so far that the pump intakes air. Please refer to the Engine Subaru User Manual for more information on turning off the engine.

16. Pull on the leash of the check valve so that the remaining water column can run off. Dismantling of the hoses after end of use

17. Clean the pump with clear water after each use, particularly after using it with muddy liquid. In addition, let the pump run for about 10 minutes with clean water. The pump is to then be completely emptied.

18. Drain the rest of the remaining water in the spiral casing using the drain plug. Unscrew the drain plug and wait until no more water comes and screw it closed again.

19. For transport, the suction cover must be again placed onto the pump and fixed coupled.

4.2 Series connection of Atlantica pumps

To achieve pumping heights of over 15 m, series connection of Atlantica pumps is possible. With this, the pressure side of the first Atlantica is connected to the next Atlantica over a dimensionally stable hose.

4.3 Using the wheel set

The Atlantica pumps can also be delivered with an optional set of wheels for easier transport. Before using them, check the wheels for stability (tightened screws and nuts). The pumps may only be lifted onto the supporting frame (tilt angle max. 45) and pulled by the handles. If the set of wheels are to be dismantled, remove the four screws and bring the Atlantica pump down using the handles provided for this. When refitting the set of wheels, ensure that the holes in the handles are aligned to the holes on the wheel set.



Caution:
If pulled too quickly, the pump can rock and overturn (damage to the pump). Ensure that the speed is appropriate. The pump should be moved on solid ground.

5 Accessories

The following accessories are available for the Atlantica mobile special pump.

- PCV suction hose with associated A or B Storz connection,
- 90 arc in A or B Storz model
- E-Start with 12 V battery
- Work lights only in connection with E-Start
- Wheel set
- Other coupling systems
- V-ribbed belt test device

Please contact your specialist dealer for questions about accessories.

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6 Service and Maintenance

It shall be the user's responsibility to ensure that all maintenance, inspection and assembly work is performed by authorized and qualified personnel who have adequately familiarized themselves with the subject matter by studying this manual and the operating manual engine Subaru in detail.
Any work on the machine shall only be performed when it is at stand-still, it is being imperative that the procedure for shutting down the machine described in this manual is be followed.
Pumps and pump units which convey hazardous media must be decontaminated. All waste emissions such as used oil must be appropriately disposed of, oil spills must be cleaned up and emissions to the environment must be reported. On completion of work all safety and protective facilities must be reinstalled and made operative again.

6.1 Maintenance Intervals

After each use, the pump must be cleaned and maintained, i.e. it must be checked for damage. The pumps have to be switched off and secured against restarting. The V-ribbed belt particularly has to be changed after 500 hours of operation or no later than every 2 years. The operating hours counter on the E-Start version is relevant for the operating hours. With the version without E-start, all operating hours are to be entered in the list provided for this at the back of the user manual.



Caution with engines:
The engines have other maintenance intervals than the pump itself. Please refer to the engine Subaru User Manual.

6.1.1 Screw tightening torque

Screw	Screw connection	Tightening torque
M8	Impeller / shaft	34 Nm
M12	Engine / spiral housing	50 Nm
M12	Pump / basket	50 Nm

6.2 Engine

With all pumps, opening of the engine is not permitted. Repairs and maintenance on the engine may only be carried out by Spechtenhauser Customer Service, Robin Europe (Subaru) or at the plant. For more information about Robin Europe (Subaru) dealer network, please refer to the website www.robin-europe.de. In case of infringement, all claims for warranty and damages are lost.

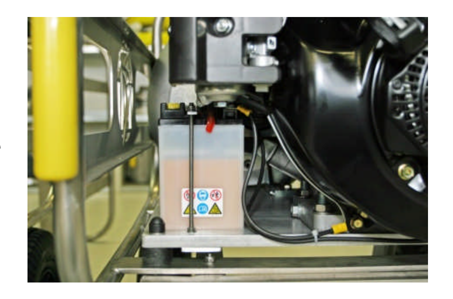
6.2.1 Engine with E-Start

The function of the optional E-Start is described in more detail in the engine Subaru User Manual. A battery is screwed to the floor panel for starting the engine. The engine has a generator which recharges the battery in operation. If the battery is to be unloaded following a longer period of downtime, this should only be done after it is removed.



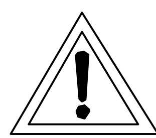
Caution:
The battery should only be changed by trained personnel or an electrician.

To remove it, loosen the two nuts and take out the retaining bracket. Then loosen the cable. Install in the reverse order.

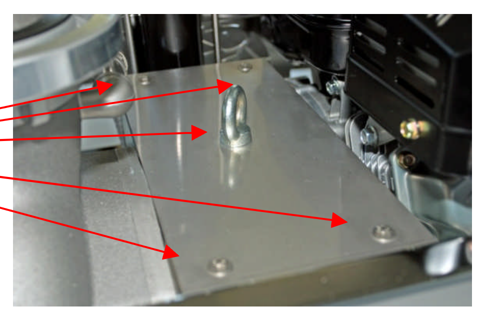


6.3 Dismantling the impeller

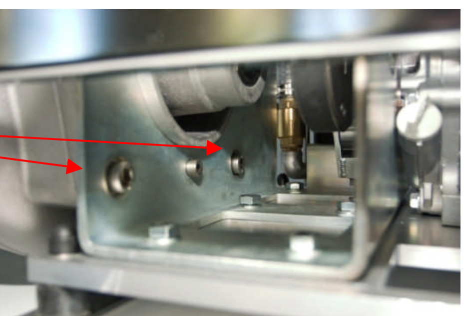
If stubborn blockages form in the spiral housing, the spiral housing and the impeller can be dismantled via the following steps:



Caution: Work may only be carried out on it when the pump is shut down and secured against restarting.

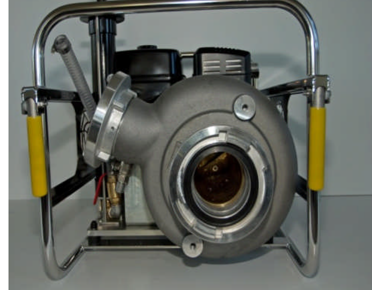


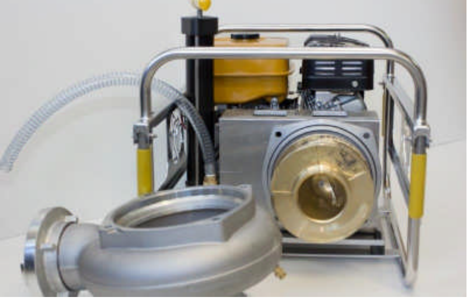
1. Remove the four hexagonal screws with washers (M5) and the suspension eyelets on the stainless steel housing between the spiral casing and the engine.
2. Remove the stainless steel cover.
3. Loosen the suction cover and place this to the side on the support frame, so that you can work without any hindrance from the suction cover



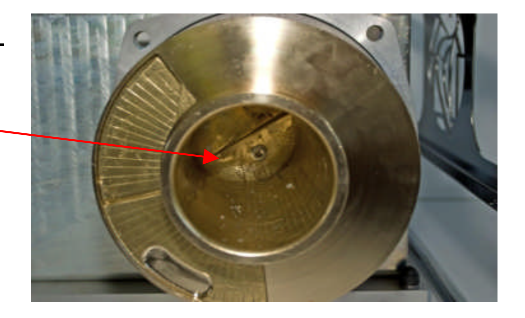
4. Remove the four cylindrical screws with the hexagon socket (M12), inside the pedestal, from the motor flange to the spiral casing.

   (The picture only shows the two bottom screws; the other two screws are positioned above.)

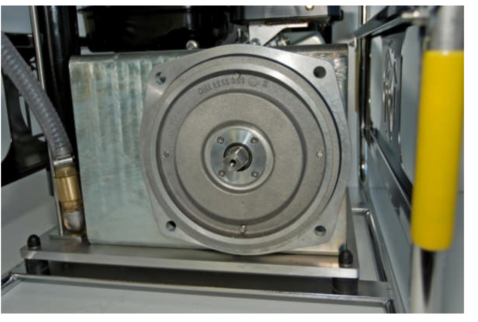




5. Remove the spiral casing. With stubborn blockages, it may be necessary to remove the spiral casing with the help of two screwdrivers. To do so, place the screwdriver on the two designated slots on the spiral casing and lift the spiral casing out. To remove the supporting frame, you have to turn the spiral casing by 90 - 45 and take it out.



6. Remove the countersunk screw with torx (M8) from the impel-ler.



7. Pull the impeller out of the shaft. After the impeller is removed from the shaft, the polygon connection has to be checked for damage.

6.4 Assembling the impeller

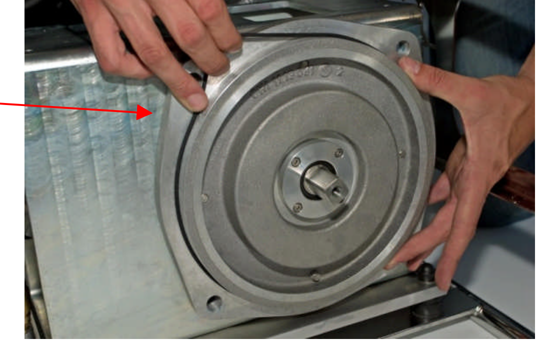
When assembling the impeller, the following steps are to be taken:



Caution: Work may only be carried out on it when the pump is shut down and secured against restarting.

1. Before assembly, clean the impeller, the engine flange and the polygon connection. Check all components for damage.

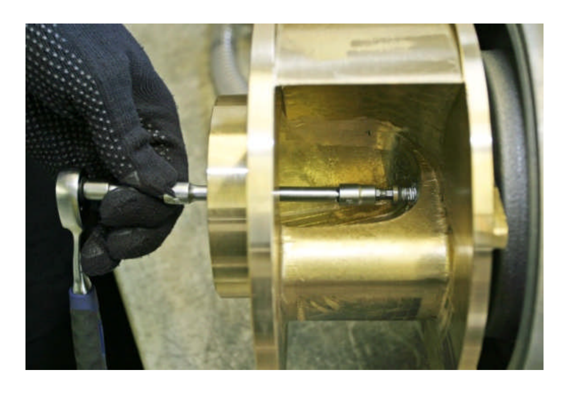
2. Attach the O-ring which is available as a spare part to the motor flange.



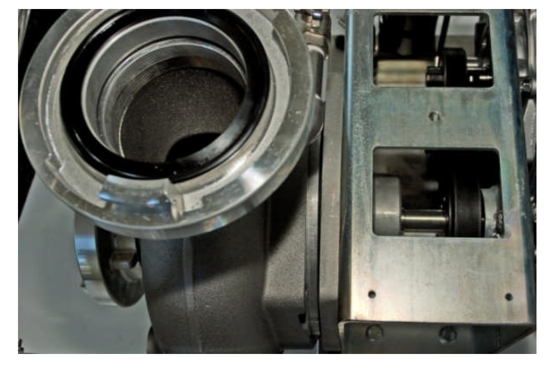
3. Evenly place the impeller, appropriate for the polygon connection, on the engine shaft and push it down until it stops. (impression depth: 27 mm)



4. Screw the impeller with the engine shaft using the countersunk screw with torx (M8). To fasten the screws, high-strength screw locking (Loctite) is to be used. Please refer to Table 6.1.1 Screw Tightening Torque for the correct screw tightening torque.



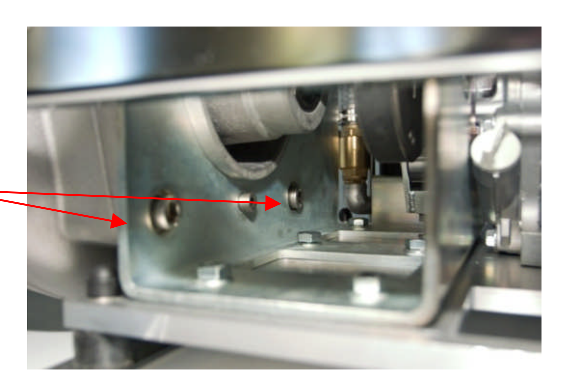
5. Place the spiral casing above the mounted impeller on the motor flange and press it onto the motor flange.



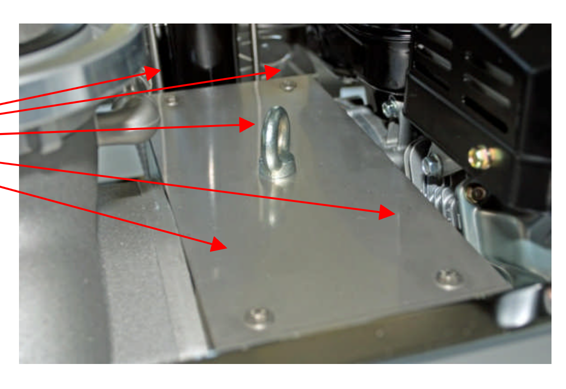
6. Tightly screw the four cylindrical screws with the hexagon socket (M12), inside the pedestal, from the engine flange to the spiral casing.

   (Only the two screws below are shown in the image)

   To fasten the screws, medium-strength screw locking (Loctite) is to be used. Please refer to Table 6.1.1 Screw Tightening Torque for the correct screw tightening torque.



   Insert the stainless steel cover between the spiral casing and the engine and tightly screw the four hexagonal screws with washers (M5) and the suspension eyelets.



7. Place the suction cover onto the pump again

Please refer to Table 6.1.1 Screw Tightening Torque for the correct screw tightening torque.

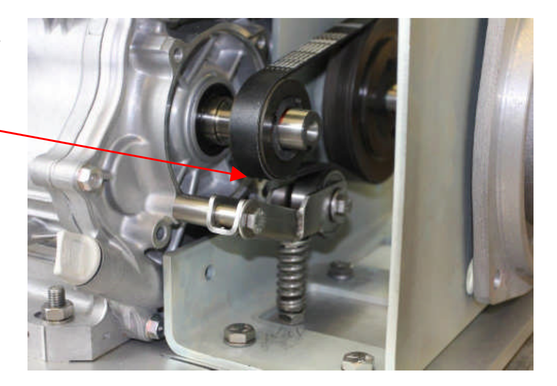
6.5 Dismantling the V-ribbed belt

The belt must be changed after 500 hours. In addition, changes can be required due to shifting or tearing on the belt extreme stress. The V-ribbed belt can be disassembled by means of the following steps:



Caution: Work may only be carried out on it when the pump is shut down and secured against restarting.

1. First, you need to remove the stainless steel cover and spiral casing. For these points, please refer to section 6.3 points 1 to 5.
2. Loosen the belt tensioner screw so that you can remove the whole belt tensioner. Take the spring out of the holder at the belt tensioner and the tensioning screw.



3. Take the V-ribbed belt out of the sprocket of the V-ribbed disks. To do this, push forward against the direction of the V-ribbed belt and in the direction of the impeller and turn the shaft. The V-ribbed belt goes down through the pressure and repeated rotation.

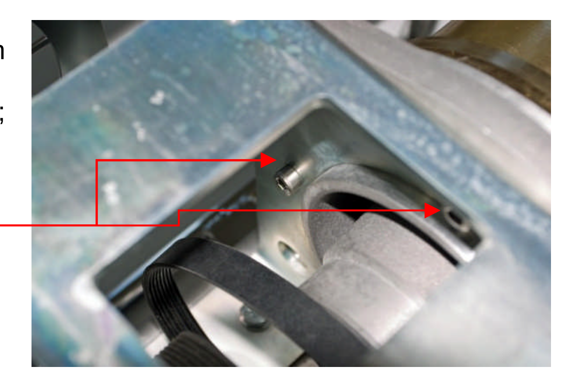


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Caution: Danger due to trapping of limbs.

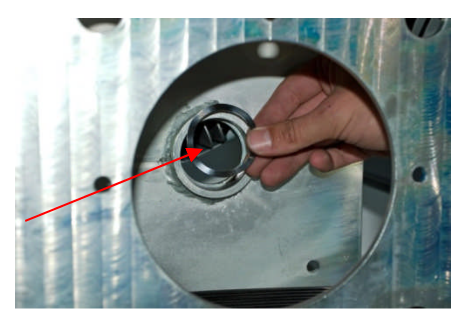
4. Loosen the four cylindrical screws with the hexagon socket (M8) on the pedestal to the motor flange.
(Only two of the four screws are visible on the image; the other screws are located opposite)



5. Drive the engine flange out of the pedestal using a plastic hammer until the entire unit is removed.



6. Remove the V-ribbed belt from the pedestal and replace it. Ensure that the clamping ring is in the rear pedestal seat. If it has fallen out, put it back in again.





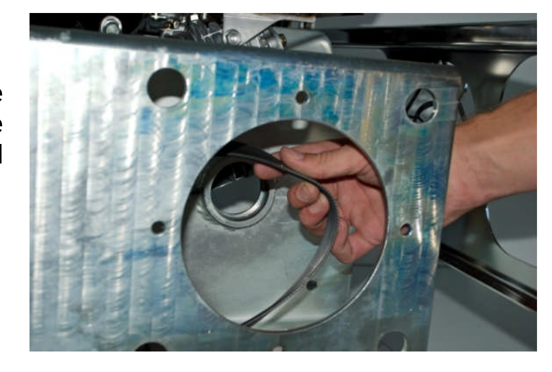
6.6 Mounting the V-ribbed belt

When assembling the impeller, the following steps are to be taken:



Caution: Work may only be carried out on it when the pump is shut down and secured against restarting.

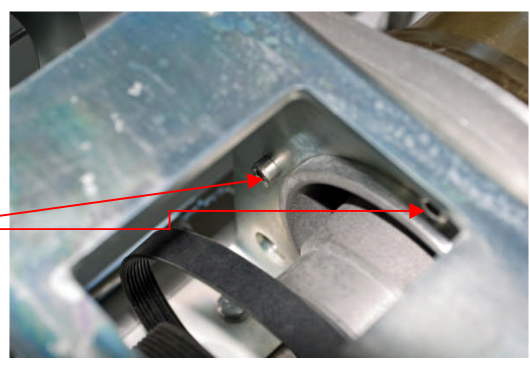
1. Lay the new V-ribbed belt in the pedestal and ensure that V-ribbed belt is also threaded when inserting the unit. Ensure that the clamping ring is in the rear pedestal seat and properly laid.



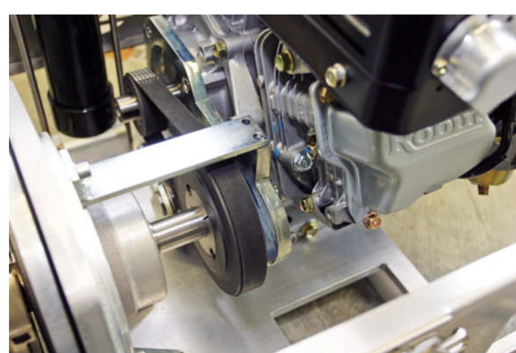
2. Place the engine flange on the pedestal, ensuring that the shaft is inserted evenly into the pedestal seat.



3. Tightly screw the four cylindrical screws with the hexagon socket (M8) on the pedestal to the engine flange. (Only two of the four screws are visible on the image; the other screws are located opposite)

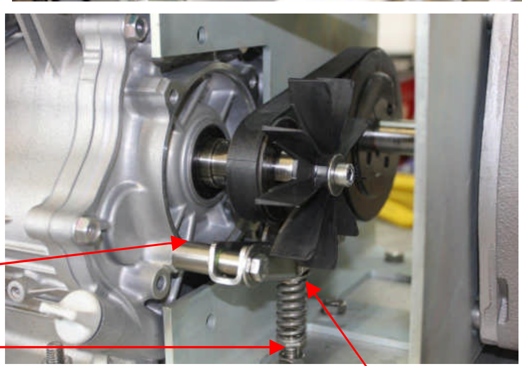


4. Insert the V-ribbed belt in the sprocket of the V-ribbed disks. To do this, push backward against the direction of the V-ribbed belts and in the direction of the engine and turn the shaft. The V-ribbed belt enters the grooves of the V-ribbed disks through the pressure and repeated rotation.



5. Loosen the clamp screw so you can insert the belt tensioner and the spring. Make sure that the spring in the holder of the tensioning screw is exactly inserted and guided. Screw on the belt tensioner, but not tightly as it still has to be adjusted.





6. Due to the tension of the spring the belt tensioner is pressed against the V-ribbed belt. A belt tension of 160 Hertz (+- 5 Hertz) is needed and this must be strictly adhered to. The required belt tension can be adjusted by tightening or loosening the tensioning screw. The V-ribbed belt test device is available as an option for measuring accuracy.



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7. Counter the tension screw using the nut above the floor panel. Then tightly screw the belt tensioner to the engine.

8. You now need to mount the stainless steel cover and spiral housing. For these points, please refer to section 6.4 points 5 to 8.

7 Problems / faults

Malfunctions, causes and fixes

Problem	Cause	Remedy
Engine does not run, stops	No petrol	Check the fill level.
		Check the power cable for damage.
	Defective power line.	Check the power cable (ignition).
	Overheated engine temperature.	Allow the engine to cool down and start it after resetting the electronics. If it happens again, the engine is to be checked by Spechtenhauser Customer Service
	Leaking engine	The engine is to be checked by Spechtenhauser Customer Service.
The engine runs, the pump does not pump	Pump or hose blocked	Clean the pump or the hose.
	Air in the pump.	When using the suction cover, ensure that the suction hose and pump are filled with water. All couplings must be sealed. Ensure that the check valve closes trouble-free.
Pumping power too low	Pressure loss in system to high.	Remove the kink in the hose or use a hose with a larger diameter.
	Flow rate too high	Connect a second Atlantica in series; so one after the other.
	Hose blocked!	Remove the blockage in the hose.
	Viscosity of the pumped liquid too high.	Use a more powerful pump.
	The pumping liquid is too thick	Thin the liquid, if possible, or use a more powerful pump.

Please refer to the Engine Subaru User Manual in case of faults and problems on the engine.

Should you have any further questions, please contact our Customer Service.

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EC Declaration of Conformity
Declaration of EC-Conformity
Attestation de Conformité CE

Hiermit erklären wir, dass alle Exemplare unserer Geräte
Herewith we declare that all our devices
Nous attestons par la présente, que tous nos produits

Atlantica

den wesentlichen Schutzanforderungen folgender EG-Richtlinien entsprechen:
comply with the following provisions applying to:
correspondent aux principales directives CE suivantes:

EG-Maschinenrichtlinie **2006/42/EG**

Angewandte harmonisierte Normen, insbesondere:
Applied harmonized standards in particular:
Principales normes harmonisées:

2006/42/EG
EN 13857
EN 809
EN 12100

Bei einer nicht mit uns abgestimmten Änderung des Gerätes verliert diese Erklärung ihre Gültigkeit.
By altering the device without approval the declaration would invalidate.
Toute modification de la machine, effectuée sans notre accord, annule la validité de la présente déclaration.

86875 Waal, 27.02.2014

SHG Spechtenhauser Hochwasser- und Gewässerschutz GmbH

Jochen Wagner
Geschäftsführer

Name des Bevollmächtigten der technischen Unterlagen nach MRL 2006/42/EG:
SHG Spechtenhauser Hochwasser- und Gewässerschutz GmbH
Gewerbestraße 3
86875 Waal, Germany

Operating hours:

No.	Date	Length of time

No.	Date	Length of time

No.	Date	Length of time

No.	Date	Length of time

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